Common Land Model and Global High-Resolution Land Data Development

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ABSTRACT

Several U.S. land modeling groups and a leading Chinese group are working together to develop a Common Land Model (CLM), which is a state-of-the-art representation of the sophisticated interactions among hydrology (water resources), ecology, and weather and climate. Using a mosaic approach as the scaling interface, the CLM can be applied to different spatial scales (from watershed, river basin, to global scales). We have finished its coding and initial testing, and are now working on its beta-testing. We plan to release the CLM code this fall to the national and international modeling community in atmospheric sciences, hydrology, and ecology.

Concurrently, we are working with several groups to develop a comprehensive global high-resolution land data (vegetation, soil, meteorology) for land modeling and other applications at small to global scales.

At the Conference, we will present preliminary results based on the CLM, and discuss our land data over regional (U.S. and China) and global scales that are of interest to the Conference participants.